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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

July 2, 1996

4WD-FFB

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Katherine Landman
Department of the Navy - Atlantic Division
Naval Facilities Engineering Command
Code 1823
Norfolk, Virginia 23511-6287

SUBJ: MCB Camp Lejeune
Draft RI
Operable Unit No. 13 - Site 63

Dear Ms. Landman:

The Environmental Protection Agency (EPA) has partially completed its review of the above subject document and comments are enclosed. Comments on the human health risk assessment will be forwarded ASAP.

If you have any questions or comments, please call me at (404) 347-3016 or voice mail, (404) 347-3555, x-6459.

Sincerely,

Gena D. Townsend
Senior Project Manager

Enclosure

cc: Patrick Waters, NCDEHNR
Neal Paul, MCB Camp Lejeune

1.0 General Comments

1. The Executive Summary on Page ES-7, Paragraph 3, Sentence 6, states that SVOC detections below soil screening values suggest that no long-term disposal of SVOCs has occurred at the site. It is unclear how detections of SVOCs below a particular screening number can be used to conclude that no long-term disposal of SVOCs has occurred at the site. The connection between SVOC screening values and long-term operations should be clarified in the text.

2. The Executive Summary, on Page ES-12, Paragraph 3, Sentence 5, states that the limited dispersion and low concentration of lead in surface water is not indicative of former or ongoing disposal activities. However, lead was detected in all surface and subsurface soil samples (some of which exceeded the base background in some cases). These detections suggest that the source of lead in surface water may be site soils. Normally, lead is present in ammunition and other metals disposed at the site and is not naturally occurring. Therefore, more convincing evidence that lead in the surface water is not due to former or ongoing disposal activities should be presented.

   This comment also applies to page ES-16, paragraph 2, sentence 4; to page 4-12, paragraph 1, sentence 4; and to page 5-6, paragraph 3, sentence 2.

3. The Executive Summary, on Page ES-16, Paragraph 2, Sentence 5, states that remediation of inorganics at the site is unrealistic and impractical because the metals are widely distributed and naturally abundant. However, this statement does not apply to lead and arsenic which are normally not naturally abundant. Widespread distribution of metals is not a valid reason for no action. Rather, low site risk to human health and the environment is a valid reason for no site action at a site. This statement should be revised.

4. Section 1, Figure 1-8, shows a former disposal area within Site 63. However, according to earlier sections about site history, very little information is known regarding the history or occurrence of waste disposal practices at Site 63. Thus, it is unclear how this former disposal area is determined. The text should explain the determination of the former disposal area at the site.

5. Section 1, Tables 1-8 through 1-11, present positive detections in all media at Site 63. However, the tables do

not present the date of the investigation and should be revised accordingly.

6. Section 4, Table 4-1, shows no data on metals in sediment samples because they were not detected above screening values. However, the table should present any positive detections. For example, metals in soil samples were detected below the screening standards, but the data are still presented for the comparison (in the same table). The text should be revised accordingly.

7. Section 4.4.2.1, Page 4-10, Paragraph 4, discusses zinc concentrations in soil versus groundwater. The conclusion is reached that zinc in the groundwater is not due to former or ongoing disposal activities. However, it is unclear in the text how this conclusion is reached. The text should present a discussion supporting this conclusion.

8. Figure 4-3 shows metals concentrations above background in surface soil. However, lead is present in the soil and was found above standards in the tributary creek. Showing the distribution of lead in soil in relation to creek samples will help determine if the site is contributing to lead in the creek. Lead concentrations should be shown in Figure 4-3.

9. Section 5.2 describes the contaminant transport pathways at the site. However, no discussion regarding the importance of the transport mechanisms specific to this site is presented. For each transport mechanism, the importance of this mechanism for this site should be discussed. For example, windblown dust may not be an important mechanism since only a small proportion of the site has a gravel road. This proportion could be roughly determined by measurements on the site map.

2.0 Specific Comments

1. **Section 1, Table 1-9.**
Section 1, Table 1-9, shows site standard as comparison criteria in the last column. However, the "Site Standard" should be "State Standard". The text should be corrected accordingly.

2. **Section 1, Figure 1-2.**
Section 1, Figure 1-2, shows the locations of operable units and sites. However, the figure shows two operable units

with the same number (OU#4) on the east and west sides. Thus, the text should give an explanation regarding OU#4.

3. **Figure 1-5**.
Figure 1-5 shows the location of the site. However, the gravel road shown on the map does not have a symbol in the legend. The symbol for a gravel road should be added to the legend.

4. **Section 3.2.1, Page 3-2, Paragraphs 4 and 5**.
The text describes the collection of surface and subsurface soil samples and use of PID readings. However, the criteria for determining what PID reading would trigger sample collection is not given. Thus, it is not clear how sample depths were selected. The text should be revised to explain how PID readings were utilized and what PID value was used to determine that readings were elevated.

5. **Section 3.2.2, Page 3-3, Paragraph 2, Sentence 6**.
The sentence summarizes the number of soil borings at the site. However, the total number of soil samples is not mentioned. The text should be revised to indicate that 96 samples were collected.

6. **Section 3.4.1, Page 3-8, Paragraph 1, Sentence 1**.
The text states that surface water samples were collected by dipping bottles into the water. However, the sampling depth and method of preservation addition (HCL for volatiles) is not described. The text should describe the sampling depth and preservation addition method for the surface water samples.

7. **Table 4-1**.
This table presents a summary of site contaminants and identifies screening standards. However, the source of the screening values is not identified for all compounds. For instance, the source for the lead screening value for surface water is not given. A column should be added showing for each standard value listed, the basis or standard for this value (i.e. MCL, water quality criteria, etc.).

8. **Figures 4-1 through 4-4**.
These figures show the approximate limit of observed surface and subsurface debris. However, it is not clear how these limits were determined. A description of how these limits were determined should be added to Section 4.4.

9. **Figures 4-4, 4-5, and 4-6**.
Figures 4-4, 4-5, and 4-6, present metals concentrations which exceeded either soil background levels or surface

water standards. However, the figure's title block does not specifically state that these values are those only above background or surface water standards (versus screening levels). The title blocks should be modified accordingly.

10. **Section 4.4.1.4, Page 4-10, Paragraph 2, Sentence 5.** The sentence states that soil boring 63-SB23 is the only boring with surface and subsurface metal concentrations in the debris areas. However, SB20 also has metals in surface and subsurface samples and is located in a debris area. Thus, the text should explain why 63-SB20 is not identified with 63-SB23 for special mention.

11. **Section 5.3.4, Page 5-5, Paragraph 3, Sentence 1.** The text states that the presence of metal debris and metal analysis in various media at Site 63 is the primary issue in the RI. However, the primary issue in the RI is whether the contaminants present at the site pose a risk to human health and the environment. The correlation to specific debris areas may or may not be relevant to risk. Site areas not associated with debris areas could pose risk. This statement should be removed or revised. Fate and transport discussions should focus on the areas where higher concentrations were detected on-site and not on a correlation between debris areas and high contaminant concentrations.